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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/837,228	04/19/2001	James B. Popp	2100.0071-00	7579

22852 7590 10/03/2002

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EXAMINER

TANG, SON M

ART UNIT	PAPER NUMBER
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2632

DATE MAILED: 10/03/2002

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Please find below and/or attached an Office communication concerning this application or proceeding.

<p align="center">Office Action Summary</p>	Application No. 09/837,228	Applicant(s) POPP ET AL.	
	Examiner Son M Tang	Art Unit 2632	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 August 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-42 is/are pending in the application.
- 4a) Of the above claim(s) 28-40 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-27, 41 and 42 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
 If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☐ All b) ☐ Some * c) ☐ None of:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
 * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
 a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: |

DETAILED ACTION

Election/Restrictions

1. Claims 28-40 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected claimed invention, there being no allowable generic or linking claim. Election was made **with** traverse in Paper No. 5.
2. Applicant's election with traverse of the fire detection/suppression system in Paper No. 5 is acknowledged. Applicant did not argue the validity of the restriction.

The requirement is still deemed proper and is therefore made FINAL.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Moore et al.** [US 4,597,451] in view of **Eguchi** [US 3,909,814].

As to claims 1-4: Moore et al. disclose a system for detecting and suppressing a fire condition in a plurality storage units, the system comprising:

-a fire detection and suppression unit [6, 8, 10, 12, 14, 16, 18 and 20] located within each of the units for detecting and transmitting location of a fire conditions [col. 2, lines 5-14];

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-a data bus [21] connecting and providing fire condition status of each of the fire detection/suppression units to a master control station/receiver [22]; and

-suppression means [column 3, lines 54-65] actuated by the master control station.

Moore et al. disclose the claimed invention except for the fire/suppression units transmitting the detection of a fire condition to a receiver and the receiver subsequently transmitting a fire condition to the master control unit and actuating a fire suppression device.

Eguchi teaches a fire detection and control system which comprising a plurality of fire/suppression units transmitting the detection of a fire condition to a receiver and the receiver subsequently transmitting a fire condition to the master control unit and actuating a fire suppression device [col. 1, lines 43-55]. It would have been obvious to one having ordinary skill in the art at the time the invention was made to use the detection/suppression system of Eguchi for the fire detection/suppression system detecting means of Moore et al. for the purpose of isolating the entire storage unit from a fire condition.

As claims 5-6: Moore et al. disclose all the limitation as claimed except for the specific type storage unit. The specific type storage unit used would have been an obvious design consideration base on the intended means to be protected by the fire detection/suppression system.

As to claim 7: Moore et al. further disclose a suppressor [6b] to contain a fire suppressant. It would have been obvious to one having ordinary skill in the art at the time the invention was made to use a pressurized vessel for the suppressor for the purpose of facilitating suppressant dispersion.

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As to claim 8: Moore et al. further disclose of an infrared signal to indicate fire condition detection [co. 2, line 24].

As to claim 9: Eguchi further teaches use of bimetallic switch 1 as shown in [Fig. 1-3]. It would have been obvious to one having ordinary skill in the art at the time the invention was made to use a bimetallic switch to detect a fire condition for the purpose of reducing nuisance fire detection signal.

3. Claims 10-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Moore et al.** in view of **Eguchi** as applied to claim 9 above, and further in view of **Fierbaugh** [US 4,987,958].

As to claims 10-13: Moore et al. as modified, disclose the instant claimed invention except for: the bimetallic switch in contact with and extending through the surface of the storage unit.

Fierbaugh teaches a bimetallic fire sensor [21] extending into a potential fire condition environment. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have a bimetal detection means of Moore et al., as modified, extend into the container for the purpose of detecting a fire condition therein. The particular surface used for the container would have been obvious design consideration base on the means to be protected.

4. Claims 14-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Moore et al.** in view of **Eguchi**, as applied to claim 2 above, and further in view of **Sears** [US 6,032,745].

As to claims 14-16: Moore et al., as modified, disclose the instant claimed invention except for: the source of pressurized fire suppressant material with a popup device configured to apply the fire suppressant to the storage unit upon detection of the fire condition. Sears teaches a valve

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[10] for a pressurized source of fire suppressant [11] [col. 4, lines 22-38] having a popup means [24] for dispersing the fire suppressant. It would have been obvious to one having ordinary skill in the art at the time the invention was made to use the fire suppression device of Sears for the fire suppression device of Moore et al. as modified, for the purpose of dispersing the fire suppressant. To trigger actuation of the fire suppressant device by an indication of a fire condition would have been obvious in order to suppress a fire.

As to claim 17: Refer to claim 1 above.

5. Claims 18-27 and 41-42 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Moore et al.** in view of **Duffoo** [US 5,899,414].

As to claim 18: Moore et al., as modified, disclose the instant claimed invention except for: the fire detection/suppression system being used by an aircraft.

Duffoo teaches an aircraft fire detection system comprising a plurality of fire/smoke detectors [14, 16]. It would have been obvious to one having ordinary skill in the art at the time the invention was made that the fire detection/suppression system of Moore et al., as modified, could have been used on an aircraft as suggested by Duffoo for the purpose of protecting an aircraft storage area from fire.

As to claim 19: Refer to claim 7 above.

As to claims 20-22: Refer to claims 14-16 above.

As to claim 23: Refer to claim 13 above.

As to claim 24-26: Refer to claim 1 above.

As to claim 27: Refer to claim 8 above.

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As to claim 41: Refer to claim 19 above.

As to claim 42: Moore et al. disclose indication of release of the suppressant being signal to the master control unit [col. 3, lines 67-68].

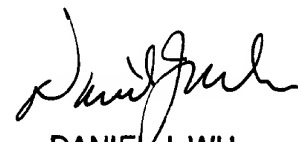
Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Son M Tang whose telephone number is (703)306-5970. The examiner can normally be reached on 4/9 First Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jeffrey A Hofsass can be reached on (703)305-4717. The fax phone numbers for the organization where this application or proceeding is assigned are (703)305-3988 for regular communications and (703)305-3988 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)305-4700.

Son Tang
September 12, 2002



DANIEL J. WU
Primary Examiner

10/01/02